

REMARKS/ARGUMENTS

The claims are 1 and 6-9. Claim 6 has been amended to improve its form. Reconsideration is expressly requested.

Claims 1 and 6-9 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner took the position that the following features (A) to (C) were not originally disclosed in the specification:

(A) in claims 1 and 6, lines 4-5, the feature "said shell having a flange formed with a boss portion";

(B) in claim 1, lines 14-15 and claim 7, lines 2-4, the feature "a part of said engaging portion opposite to a release surface being elastically deformed to reduce an inner space"; and

(C) in claim 6, lines 10 to 13, the feature "wherein said reinforcing portion includes a hollowed portion which escapes from said boss portion and penetrates in an intersectional direction to a forming direction of the boss portion to be opened on one end of said hollowed portion."

This rejection is respectfully traversed.

As set forth in 35 U.S.C. 112, the detailed description of the invention need only be in such clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same. It is respectfully submitted that the above-mentioned features (A) to (C) are clearly disclosed in the original specification and drawings as will be explained in the following.

With respect to feature (A):

Referring to FIGS. 4(b) and 5 of the drawings as originally filed, the shell (17) has a flange (19) formed with a boss portion (37). Further, referring to attached Reference FIG. 1 corresponding to FIG. 3(b) as originally filed, the boss portion is shown by reference number (37).

Accordingly, it is respectfully submitted that the feature (A) is clearly described in the original specification.

With respect to feature (B):

It is shown in Reference FIGS. 2(a) and 2(b) (corresponding to FIGS. 4(a) and 4(b) as originally filed) and paragraphs [0037] and [0039] on page 9 of the disclosure that a part (70) of the engaging portion (65) is opposite to a release surface and is elastically deformed to reduce an inner space shown as (S) in Reference FIG. 2(a).

In addition, it is described in paragraph [0031] on page 8 of the disclosure as originally filed that the reinforcing member (53) is made of either resin or metal and can be used as long as it has elasticity.

When the reinforcing member (53) is fitted to the connector body (27), the engaging portion is elastically deformed to be released or engaged.

It is respectfully submitted that as can be easily understood from Reference FIGS. 2 (a), (b) and Reference FIGS. 3(a), (b) (corresponding to FIGS. 3(a) and 3(b) as originally filed) that the reinforcing member can not be fitted without deforming elastically.

The parts or engaging projections (70) engage to the connector (27) and the reinforce member (53) can hold the connector (27).

Therefore, it is respectfully submitted that the reinforcing member can not hold the connector without elastic deformation thereof.

Accordingly, it is respectfully submitted that feature (B) is disclosed in the originally filed specification and drawings.

With respect to feature (C):

In FIG. 4(a) and page 9, paragraph [0038] of the specification as originally filed, it is respectfully submitted

that a reinforcing portion (67) that includes a hollowed portion (73) is clearly described.

The feature the hollowed portion (73) "penetrates in an intersectional direction to a forming direction of the boss portion [37] to be opened on one end of the hollowed portion [73]" means that the hollowed portion (73) is penetrated through outwardly in a direction represented by the white arrow shown in Reference FIG. 4 which is a portion selected from FIG. 4(a) as originally filed.

It is described on page 9, paragraph [0039] of the disclosure as originally filed in conjunction with FIG. 4(c) that the reinforcing member (53) is fitted from the rear side of the connected body.

In the above-mentioned structure, it is advantageous that a connector body (27) can be freely detached or attached to the reinforcing member (53).

Because the above-mentioned structure can be easily seen from the original drawings and the original specification, it is respectfully submitted that feature (C) was originally described and cannot be considered new matter.

The Examiner also took the position that in claim 6, lines 16-18, the feature (D) "a substrate receiving a stress generated in fixing said connector to the object is received through the reinforcing member" was confusing and unclear.

This rejection is respectfully traversed as well.

As described in paragraph [0019] on page 4 and paragraphs [0041] and [0042] on page 10 of the disclosure as originally filed, the feature (D) means that a strong screw pushing force (as shown by the white arrow (43) in FIG. 2 as originally filed) by a driver (39 in FIG. 2) can be relieved to a board (i.e. the substrate) through the reinforcing member (53) when a connector is fixed by a screw (41, in FIG. 2).

Accordingly, it is respectfully submitted that feature (D)

set forth in claim 6 is also fully supported by the specification as originally filed.

Claims 1 and 6-9 were rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka U.S. Patent Application Publication No. 2004/0235349.

This rejection is respectfully traversed.

As set forth in claim 1, Applicants' invention provides:

- (a) a connector comprising a connector body and a reinforcing member;
- (b) the connector body comprising an elongated conductive contact, an insulator holding the contact, and the shell surrounding the insulator;
- (c) the shell having a flange formed with a boss portion for fixing the connector to an object to be fixed;

- (d) the connector being used for mounting a substrate;
- (e) the reinforcing member comprising a reinforcing portion provided between the object and the substrate and contacting the flange and an engaging portion engaging the shell;
- (f) the engaging portion surrounding three faces of the shell; and
- (g) a part of the engaging portion opposite to a release surface being elastically deformed to reduce an inner space so as to engage the shell or to increase an inner space so as to release the shell, so that the reinforcing member is detachably fitted to the connector body.

As set forth in claim 6 as amended, Applicants' invention provides:

- (a) a connector comprising a connector body and a

reinforcing member;

- (b) the connector body comprising an elongated conductive contact, an insulator holding the contact, and a shell surrounding the insulator;
- (c) the shell having a flange formed with a boss portion for fixing the connector to an object to be fixed;
- (d) the connector being used for mounting a substrate;
- (e) the reinforcing member comprising a reinforcing portion provided between the object and the substrate and contacting the flange and an engaging portion engaging the shell;
- (h) the reinforcing portion including a hollowed portion which escapes from the boss portion and penetrates in an intersectional direction to a forming direction of the boss portion to be opened on one end of the hollowed portion;

- (i) the reinforcing member being detachably fitted to the connector body; and
- (j) the substrate receiving a stress generated in fixing the connector to the object, which is received through the reinforcing member.

As a whole, in the basic structure of Applicants' connector as set forth in claims 1 and 6, as amended, the insulator accommodating the contacts and a reinforcing member for reinforcing the flange of the connector body are separately formed.

According to the above-mentioned features (a) to (e), Applicants' connector as set forth in claims 1 and 6, as amended, is advantageous in that the reinforcing member can be detached or attached independently, before or after fitting to the panel. The connector can be used with the reinforcing member detached in fixing the flange of the connector under circumstances when reinforcing is not needed. The reinforcing member can be removed because the reinforcing member is not necessary after the flange

is fixed to the frame of a device. In addition, as mentioned above, an excessive pushing force in screwing by a driver can be relieved to a board (i.e. the substrate) through the reinforcing member when a connector is fixed by a screw.

Tanaka discloses in FIGS. 1A-4B a connector including a connector body (2) and a reinforcing member (6).

More in detail, Tanaka discloses a basic structure of a connector including portions for reinforcing the flange (6b) (corresponding to Applicants' reinforcing member (53)) and an insulator for accommodating contacts, in which the portions and the insulator are formed into one body or by a similar member to each other.

In the above-mentioned structure of Tanaka, however, the reinforcing member (6) has a flange (6b), and a reinforcing portion for reinforcing the flange (6b) and the connector body (2) are formed into one body, so that the reinforcing portion can not be detached from the connector body.

In contrast, with Applicants' connector as set forth in claims 1 and 6, as amended, because of the basic structure of the connector where the insulator and the reinforcing member are separately formed, the reinforcing member for reinforcing the flange can be detached freely even in a direction parallel to a screw axis before fixing by screwing.

In addition, in Tanaka, an excessive pushing force in screwing by a driver can be relieved to a board (i.e. the substrate) through the connector body when a connector is fixed by a screw through a flange. That is, the connector body is fixed to the substrate through the terminal of contacts of the connector body.

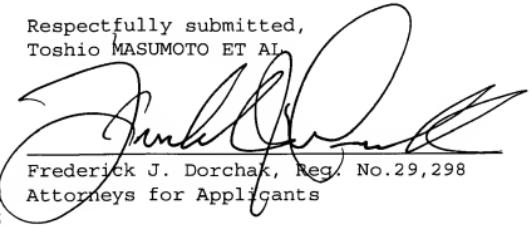
In contrast, with Applicants' connector as set forth in claims 1 and 6, as amended, an excessive pushing force in screwing by a driver can be relieved to a board (i.e. the substrate) through the reinforcing member (53) when a connector is fixed by a screw.

Accordingly, it is respectfully submitted that Applicants' connector as set forth in claims 1 and 6, as amended, has a basic structure that is different from Tanaka, and the reinforcing process is different as well.

Accordingly, it is respectfully submitted that Tanaka fails to anticipate or render obvious Applicants' connector as set forth in claims 1 and 6, as amended, or dependent claims 7-9 which depend on either claim 1 or claim 6 as amended.

In summary, claim 6 has been amended. In view of the foregoing, withdrawal of the final action and allowance of this application are respectfully requested.

Respectfully submitted,  
Toshio MASUMOTO ET AL



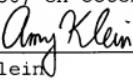
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Enclosures: Reference FIGS. 1-4 (For Illustrative Purposes Only)

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: MAIL STOP AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on October 30, 2009.



Amy Klein